

S41-3 Global warming and global-scale water issues

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Latest achievements and the current research direction on the so-called global warming, hydrological changes caused by it, and world water resources issues caused by it are introduced in the presentation. One may imagine that water issues are mostly correspondent to issues of the lack of safe drinking water, but it is not true. Agricultural water occupies 70% of world water withdrawal and 90% of world water consumption; therefore, water scarcity is highly connected with agriculture and food production. Several latest achievements on this matter, for example, the meaning of “2 billion people is or will be under high water stress”, will be introduced and explained in the presentation. On the other hand, too-much water causes flood disaster. While the maximum flood-affected population of the world is 300 million nowadays and the minimum is 30 million, it is projected that, in the late 21st century, 300 million will be the number in a least flooding year and several times more affected population will be the number in a devastating year. In general, there is much uncertainty in these projections of water issues under global warming, if researchers in the field of precise experiments and theories take a glance at these projections. However, it is also true that our society should determine our behavior based on these projections.